

### Claims

1. Method to process a SAS Application Service request, including the steps of: performing an Inbound Message Analysis, performing a Service Decision, performing an Outbound Message Synthesis, wherein the Inbound Message Analysis includes an Application Specific Inbound Protocol Check, an NoAI (Nature of Address Indicator) Analysis and an Inbound Digit Analysis, wherein the Service Decision includes a Database Search and an Application Specific Evaluation of Database Search Indications, and wherein the Outbound Message Synthesis includes generating an Output Digit String making use of an application specific Output Digit String Configuration Table, which includes the parameter SAS Application Service Id and at least one of the following parameters: Output Digit String Id, Auxiliary Number Name, Nature of Address Indicator, Auxiliary Number Presence, Auxiliary Number Position.
2. Method, as set forth in claim 1, wherein the Outbound Message Synthesis includes generating an Output Digit String making further use of at least one Outbound Processing Configuration Table, which includes the parameter SAS Application Service Id and at least one of the following parameters: Number Type, Portability Status, Inbound NoAI Value, Response Action Id, Output Digit String Id.

3. Method, as set forth in claim 1, wherein the Service Decision further includes a Generic Loop Detection Analysis making use of at least one application specific Loop Detection Configuration Table, which includes the parameter SAS Application Service Id and at least one of the following parameters: SAS Database Id, SAS Database Table Id, Number type, Portability Status, Loop Detection state and Action.
4. Method, as set forth in claim 1, wherein the Database Search is performed in a Single Number Table and subsequently in a Range Number Table if the Single Number Table query indicates a NO MATCH or an Error in the Single Number Table.
5. Method, as set forth in claim 1, wherein the SAS Application Service is INAP based Number Portability, and wherein the Output Digit String Configuration Table includes INAP based Number Portability Ids (MNP-INAP-O-VM-IW).
6. Method, as set forth in claim 1, wherein the SAS Application Service is SRI (Send Routing Information) terminating Number Portability, and wherein the Output Digit String Configuration Table includes SRI terminating Number Portability Ids (MNP-SRI-t-O-VM-IW).
7. Method, as set forth in claim 1, wherein the SAS Application Service is MAP Forward Short Message Access Screening, and wherein the Output Digit String Configuration Table includes Forward Short Message Access Screening Ids (MAP-FSM).
8. Method, as set forth in claim 1, wherein the SAS Application Service is Fixed SCCP Routing, and wherein the Output Digit String Configuration Table includes Fixed SCCP Routing Ids (FNP-SRF).
9. Method, as set forth in claim 1, wherein the SAS Application Service is CAP IDP Relay Mobile Number Portability, and wherein the Output Digit String Configuration Table includes CAP IDP Relay Mobile Number Portability Ids (MNP-CAP-RELAY-IW).
10. Method, as set forth in claim 1, wherein the SAS Application Service is INAP IDP Relay, and wherein the Output Digit String Configuration Table includes INAP IDP Relay Ids (INAP-IDP-RELAY-I/W).

11. Method, as set forth in claim 1, wherein the SAS Application Service is Mobile SCCP Routing, and wherein the Output Digit String Configuration Table includes Mobile SCCP Routing Ids (MNP-NCR).
12. Signaling application server (SAS), comprising at least one processor, at least one database and at least one processing software for processing at least one application service request, wherein the at least one processing software is programmed in such a way that identifying and processing at least one application service request is enabled, and wherein processing a SAS application service, comprises the steps of:
  - performing an inbound message analysis,
  - performing a Service Decision including a database search,
  - performing an Outbound Message Synthesis including generating an Output Digit String making use of an application specific Output Digit String Configuration Table, which includes the parameter SAS Application Service Id and at least one of the following parameters: Output Digit String Id, Auxiliary Number Name, Nature of Address Indicator, Auxiliary Number Presence, Auxiliary Number Position.
13. SS7 signaling server for routing SS7 links, including a signaling transfer point (STP), and a signaling application server (SAS),
  - wherein the STP has at least one external interface to connect the STP via at least one SS7 link to at least one telecommunications unit, and an internal interface to connect the STP to the SAS,
  - wherein the SAS comprises at least one processor, at least one database and at least one processing software for processing at least one application service request, wherein processing a SAS application service, comprises the steps of:
    - performing an inbound message analysis,
    - performing a Service Decision,
    - performing an Outbound Message Synthesis including generating an Output Digit String making use of an application specific Output Digit String Configuration Table, which includes the parameter SAS Application Service Id and at least one of the following parameters: Output Digit String Id, Auxiliary Number Name,

Nature of Address Indicator, Auxiliary Number Presence, Auxiliary Number Position, and

wherein the STP is capable to process incoming SS7 messages, to identify a single application service request in one incoming SS7 message, to provide the identified single application service request to the SAS for further processing.